

**Meeting minutes for *E. coli* Rulemaking Workgroup
January 15, 2003, 1:00 PM to 3:30 PM
Tippecanoe County Extension Office**

Attendees include:

Mary Ellen Gray, Dennis Clark, Catherine Hess, Bill Harkins, Reggie Baker, Dan Olson, Chad Frahm, Tom Anderson, Kiran Verma, Dave Kallander, Lynne Newvine, Ron Turco, Roseann Hershinger, Barb Lollar, Robin Feller, and Teresa Lewis.

Agenda Item added

Mary Ellen indicated that there was a new agenda item for this meeting. In the last Triennial meeting an interest was raised in doing a presentation to the board to keep them apprised of the *E. coli* workgroup's progress and the policy issues they were contending with.

Review of Meeting Minutes

Mary Ellen had received some internal and external comments. She indicated that the minutes distributed reflected those changes.

Review and finalize Workplan:

- There was no CAFO representative or a small community representative yet. Members are still trying to identify representatives. There was some discussion of what is meant by the term "small".
- Members had received background materials on CD and one by mail. Ron Turco distributed an additional five documents.
- There were two iterations of the workplan. The first included a lot of discussion from the meeting. The last iteration was per workgroup members comments. Sub-issues have been added under each major issue.
- The order of issues was changed as follows: 6, 7, 4, 1, 2, 3, 8, 5. The new version of the Workplan will reflect these changes.
- Changes to the discussion issues from the workplan:

Seasonal vs. Year Round Disinfection issue - sub-issues (a) through (d) have been added.

- (a) What is the practical recreational season?
- (b) Is this a disinfection issue for dischargers or a use designation issue?
- (c) Is this a pathogen issue or indicator organism issue?
- (d) Is there sufficient published evidence that *E. coli* is more resistant than previously assumed and/or what evidence/studies/research exists on actual pathogens?

Options for daily max, monthly average and/or monthly percentage - the following sub-issue has been added:

- (a) What is the antibacksliding impact, if any?

It was suggested that antibacksliding be discussed first and see how many communities will be affected; otherwise this part of the discussion would be moot.

Should Best Available Technology limits be established? - the following sub-issues have been added:

- (a) A court ruling outside of the Great Lakes basin required IDEM to consider the available assimilative capacity of the receiving waterbody (Carmel decision)
- (b) Does BAT mean no discharge of indicator organisms?

Should application of the *E. coli* criteria be the same throughout the state? - the following sub-issues have been added:

- (a) Great Lakes Basin - end of pipe application, no mixing zone
- (b) Outside Great Lakes Basin -consider assimilative capacity, use BAT
All end of pipe, all BAT, other?

The question was raised about where would we target the point of compliance. Whether the rules will be applied to point of contact? The point was made that different criteria may be applied to beaches as opposed to less frequently used waters.

Should standards for *E. coli*, ammonia and other pollutants be established for waste stabilization lagoons? “Ammonia and other pollutants” will be deleted from this issue. The following sub-issues have been added:

- (a) Focus of workgroup is *E. coli*; therefore only include macro and micro nutrients as they apply to *E. coli* or other indicator growth.
- (b) Does recent monitoring data support the premise that *E. coli* is controlled by 90-day retention in waste stabilization lagoons?

Full body contact designation - Should different risk levels/different criteria be applied to various types of waters? The following sub-issues have been added:

- (a) Should there be a partial body contact use designation? Is this possible without a Use Attainability Analysis?
- (b) Should there be a multi-risk classification for waters in Indiana? For example, risk level of 8 gastrointestinal illnesses per 1000 swimmers for actual beaches (Class A), other risk levels and their associated monthly geometric means and single maximum for less frequently used waters.
- (c) How does antidegradation impact potential “classifications”.

It was decided that sub-issue (b) should be deleted because SEA 431 already provided for suspensions under certain circumstances for CSO events, but if anyone had questions they could e-mail them to Mary Ellen.

Is *E. coli* the appropriate indicator organism? Are there other organisms or approaches that should be considered?

No proposed changes to this issue at this time.

Are other *E. coli* testing methodologies appropriate?

No proposed changes to this issue at this time.

The last item, “Should we establish *E. coli* secondary/partial body contact for wet weather and for other waterbodies?” was struck out. It was suggested that the three paragraphs from this issue item be summarized and added under #6 (new #1).

Operating guidelines

Denny Clark handed out the operating guidelines for review and comments.

Workgroup Discussion

Mary Ellen suggested skipping issue #1 for that day so that people could have time to review the handouts provided by Ron Turco, and the group turned to issue #2. Roseann Hershinger asked how the issue of water quality based limits was related to the issue of whether best available Technology (BAT) limits should be established. Denny Clark explained that the issue of what should be considered Best Available Technology (BAT) came up indirectly due to the Carmel case. There are currently no established BAT requirements for *E. coli*. Barb Lollar explained that so far we have only used water quality based limits for bacteriological limits but maybe we should have technology based limits.

After reordering, the group started with full body contact designation discussion - should different risk levels/different criteria be applied to various types of waters? Denny Clark discussed the background of this issue and the U.S. EPA guidance. In Indiana all waters are designated full body contact. The question is whether we want to utilize EPA’s guidance and apply different risk levels, which would result in the application of different water quality criteria. There was a discussion on applying different risk levels. It makes sense to apply different risk levels based on frequency of use to different streams, and keep the full body contact designation. We need to look at site specific risk levels. We also need to develop objective criteria in our rules for communities to petition IDEM to implement different risk levels within the full body contact use designation, while keeping the use designation the same as we have now. This raises the question whether the Alaska rule applies here. The discussion was that there would generally be three groups of waters: (1) those such as lakes or beaches in which full body contact is occurring—these would retain the current *E. coli* criteria, (2) those for which full body contact is rare or unlikely to occur—these could be assigned the highest risk level, and (3) those waters in between—these would be assigned a middle risk level. The idea was that the first two categories would be relatively obvious, but the third group of waters would require a submission to IDEM of information and criteria would have to be developed to determine whether to allow the waters to be reclassified with a higher risk. Concern was raised that downstream uses must be protected if a request is made to revise the risk level. The proposal cannot adversely

affect downstream uses. Knowledge of the individual watersheds will be helpful.

The workgroup decided that it should move forward with applying different risk levels while keeping the full body contact designation. The workgroup also discussed the process for this and decided that the current risk level (8 illnesses per 1000) should be the default and that it should be up to each community to petition IDEM for application of a different risk level. The group also decided it should move forward with laying out the risk criteria, procedure for risk in the rule, and the petitioning process. It was emphasized that we would not be changing the use designation (full body contact) but only changing the criteria. We would have to make a rule change and get it approved by EPA.

Denny Clark explained that each risk level has four confidence measures as set up in table B-2 in the EPA guidance.

It was mentioned that the use of secondary contact designations would require use attainability analyses-(UAAs). If we want to establish secondary body contact criteria, federal law allows six factors to be considered to consider changing the designations.

Barb Lollar raised the question whether it would be beneficial to include a representative from Board of Health on the workgroup.

Background Materials

Ron Turco distributed and briefly discussed the following documents:

- 1) Microbial Source Tracking: State of the Science
- 2) Lake-Associated Outbreak of *Escherichia coli* 0157:H7 –Illinois, 1995
- 3) Sources and Variability of Fecal Coliform in an Agricultural Environment: Paper No. 022263
- 4) Microbial Ecology
- 5) Literature review on *E. coli*

Next Steps

- IDEM will put together an outline describing the risk criteria, procedure for risk in the rule, and the petitioning process for discussion.
- Dave Kallander and Roseann Hershinger will look at modeling to determine whether we can calculate downstream impacts, which would include looking at travel time for *E. coli* based on turbidity, dilution, flow rate, temperature, survival and other factors.
- OLC to look at whether the Alaska rule affects the potential reassignment of risk factors and related water quality criteria. OLC will get draft language together and send to EPA for prior approval.
- IDEM will send out document regarding non-human sources of *E. coli*.

Next Meeting Issues

- Review of the outline describing the risk criteria, procedure for risk in the rule, and the

- petitioning process.
- Continuing of the Full Body contact designation issue - Partial body contact designation and suspension during wet weather.

Next Meeting

February 17, 2003

12:30 p.m. - 3:30 p.m

.

Location: To be announced (Ron Turco will check on availability)